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**WORK PLAN FOR
REMEDIAL DESIGN OVERSIGHT**

**MOSS-AMERICAN SITE
Milwaukee, Wisconsin**

WA No. 15-5LM7 / Contract No. 68-W8-0040

October 31, 1990



October 31, 1991

GLO65608.PP.WP

Ms. Betty Lavis
Work Assignment Manager
U.S. Environmental Protection Agency, Region 5
230 South Dearborn Street
Chicago, IL 60604

Dear Ms. Lavis:

Subject: Moss-American Site
Final Work Plan—Remedial Design Oversight
WA 44-5PM7

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BUREAU OF SOLID -
HAZARDOUS WASTE MANAGEMENT

Attached are two copies of the Work Plan to perform the scope of work identified in the Statement of Work, dated September 10, 1991, attached to the Work Assignment Form, dated September 10, 1991. We anticipate that we will be receiving our first PRP-deliverable for review within the next 2 to 3 weeks.

Sincerely,

CH2M HILL

Steve Keith
Site Manager

ph/GLT176/037.51
Attachments

cc: Stephen Nathan/PO/US EPA Region 5
Raymond Johnson/CO/US EPA Region 5
Mark Giesfeldt/WDNR
John Fleissner/PM/Milw
Al Sloan/APM-OPNS/Milw
Bob Mason/APM-ADMIN/Milw
Rakesh Walia/Reston

Phil Smith/RTL/Milw
Don Johnson/QCRVW/Milw
Jeff Keiser/QCRVW/Milw
Randy Videkovich/Dayton
Donna Navarro/PA/Milw

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GLT779/092.51

Introduction

The United States Environmental Protection Agency (EPA) has assigned CH2M HILL to provide oversight of the Responsible Parties' Remedial Design (RD) work for the Moss-American Superfund site. This work plan defines the scope, schedule, and budget required for CH2M HILL to provide assistance to the EPA in overseeing the Responsible Parties' (RPs') remedial design for the site. CH2M HILL prepared this work plan for the EPA under authorization of U.S. EPA contract No. 68-W8-0040 and Work Assignment No. 44-5PM7.

This work plan does not include assistance with community relations activities or oversight of the remedial action (RA) activities. Community relations activities will be performed under a separate work assignment. The RA oversight work is not yet defined and will be addressed under a separate work assignment. The scope of work presented herein is based on the information provided in the work assignment, the scope of work outlined in the Consent Decree Scope of Work ("Appendix 2—Statement of Work for the Remedial Design and Remedial Action Work Plan"), and the RPs' Draft Interim Predesign Work Plan (July 15, 1991). A Work Plan Revision Request (WPRR) will be required if the RPs' final work plans or decree documents identify additional deliverables or changes in the estimated schedules, or if the RPs' deliverables require more revisions than anticipated, or if the deliverables are generally of poor quality.

Background

The Moss-American Superfund site is located in the northwestern section of Milwaukee, Wisconsin (see Figure 1). The 74-acre site includes the former Moss-American wood preserving plant property and 5 miles of the Little Menominee River. The Little Menominee River passes through the eastern half of the former wood preserving plant and extends about 5 miles to its confluence with the Menominee River. Portions of the Little Menominee River flood plain are included within the site boundaries. The site is located in a moderately populated suburban area of mixed use.

Polycyclic aromatic hydrocarbons (PAHs) derived from creosote, a Resource Conservation and Recovery Act (RCRA) listed waste, are the contaminants of concern at the site. PAH contamination was found in the soils of the former wood preserving plant and in the sediments of the Little Menominee River.

The U.S. EPA completed the remedial investigation and feasibility study at the site in May of 1990. The Record of Decision (ROD) was signed on September 27 of the same year. The remedial action includes rechanneling the Little Menominee River, excavation and bioremediation of the contaminated soil and sediment, and groundwater collection and treatment. This complex remedial action requires several predesign tasks be completed before the design phase can begin.

The U.S. EPA signed a consent decree with the RPs for the RD/RA at the site in June 1991. The RPs began predesign studies in July and submitted an interim work plan in August.

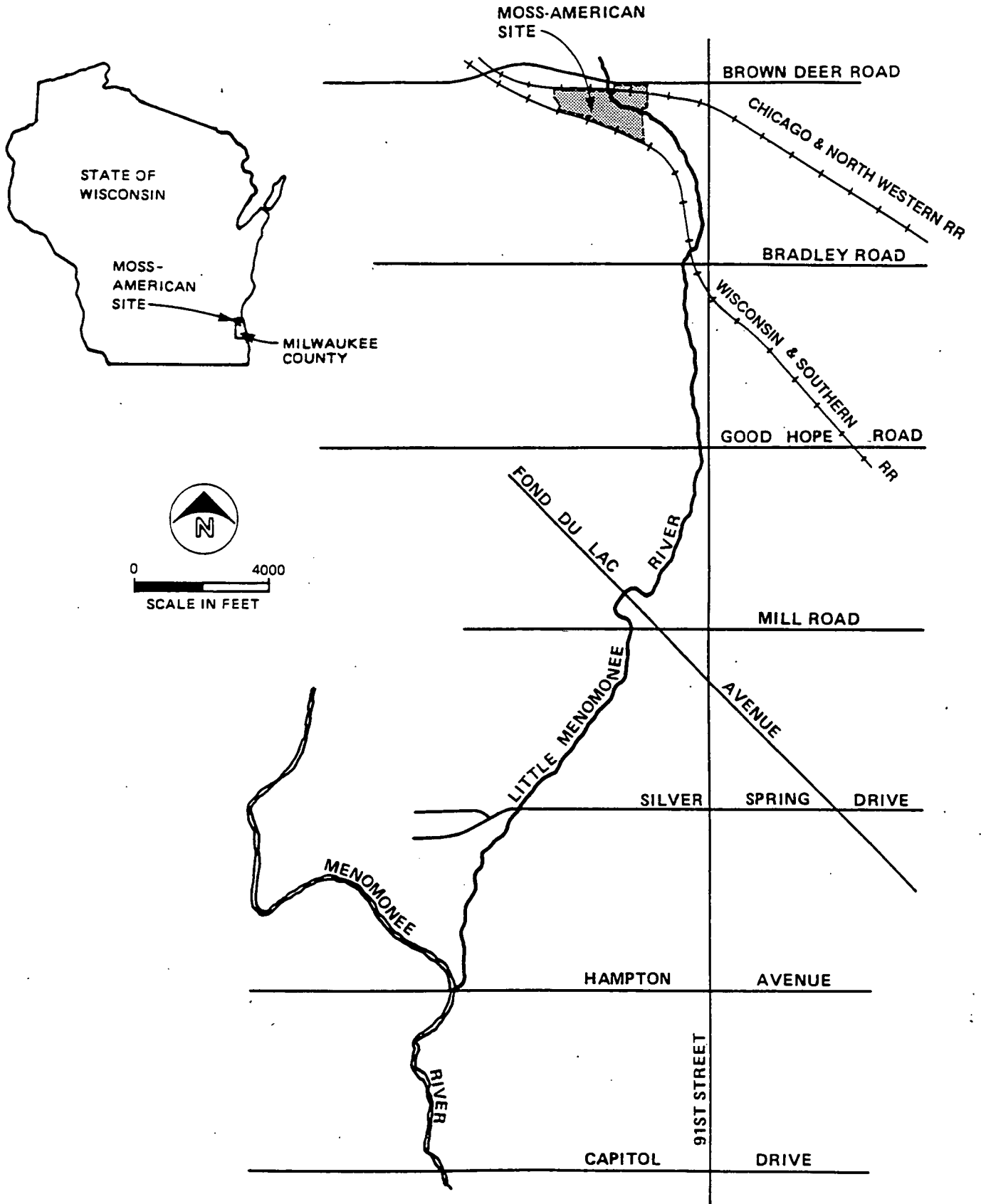


FIGURE 1
LOCATION MAP
MOSS-AMERICAN

Project Objective

The objective of this work assignment is to provide oversight assistance to the U.S. EPA for remedial design for the Moss-American site. This assistance will include reviewing the design documents generated by the RPs' consultants and participating in design review meetings as requested by the Work Assignment Manager (WAM). The RPs' deliverables will be reviewed for their conformance with the Consent Decree Scope of Work, the ROD, and published standard engineering practices. CH2M HILL will also monitor supplemental predesign investigation field activities. The general tasks associated with this work assignment are defined further under "Scope of Work." CH2M HILL will use the Superfund Project Control System for budget control and planning.

Compliance Documents

For this work plan, the compliance documents will include at least the following:

- Consent Decree (once it is lodged)
- Record of Decision
- Statement of Work for RD/RA to be included as an appendix to the lodged Consent Decree

Role of CH2M HILL

The U.S. EPA has retained CH2M HILL to assist in the oversight of the RD for the Moss-American site. CH2M HILL will provide documentation and bring observed deviation from compliance documents to the EPA's attention. CH2M HILL is not responsible for deficiencies in design plans, specifications, or other documents prepared by the RPs or contractors of the RPs. Also, CH2M HILL is not responsible for whether the RPs follow the procedures in the compliance documents. CH2M HILL will not authorize RPs or their contractors to deviate from the compliance documents. Only the U.S. EPA has the authority to allow changes to or deviations from the compliance documents. CH2M HILL will not direct, advise, or make recommendations to the RPs or their representatives while performing field operations.

Third Party Beneficiaries

CH2M HILL's efforts and obligations under this work assignment are for the benefit of the U.S. EPA only. Neither the RPs, their consultants or construction contractors of any tier, their employees, nor any person or entity is a third party beneficiary of this work assignment.

Health and Safety

CH2M HILL will prepare a Site Safety Plan (SSP) for use by CH2M HILL personnel. The plan will be amended as necessary to address particular field work activities or changes in oversight personnel. CH2M HILL will adhere to its own health and safety plan while in the field. CH2M HILL will not be responsible for monitoring the RPs' or their contractors' health and safety program or its implementation. The National Contingency Plan (NCP) explicitly states in the preamble that "The responsibility for assuring worker safety and health at a response scene is that of the employer" (FR 8679). The NCP text states the following at 55 FR 8831.150(e): "All governmental agencies and private employers are directly responsible for the health and safety of their own employees." CH2M HILL will notify the U.S. EPA immediately if obvious or flagrant violations of health and safety practices are observed (e. g., eating or smoking in the exclusion area). CH2M HILL will not be responsible for reviewing or monitoring the RPs' compliance with their own health and safety plan.

CH2M HILL oversight personnel will provide their own monitoring equipment as required in CH2M HILL's SSP. Oversight personnel will obey health and safety directives of the RPs to the extent that they do not conflict with CH2M HILL's SSP.

CH2M HILL's health and safety procedures will conform to OSHA regulations. Field oversight personnel must maintain the buddy system when in exclusion zones. RPs' contractors may serve as "buddies" provided that an agreement is made between CH2M HILL and the RPs before field activities begin, the RPs' personnel qualify as buddies under CH2M HILL's health and safety program requirements, and the arrangement is documented in CH2M HILL's SSP. It is assumed that the highest level of protection required to perform oversight activities will be Level C. CH2M HILL will be responsible for having required personal protective equipment and health and safety monitoring equipment for its employees at the work site. It is assumed that the RPs will provide sufficient storage space for this equipment.

Scope of Work

The scope of work for this work assignment is divided into tasks and subtasks to facilitate project budgeting and project management. The major tasks are Project Planning, which defines the work associated with the RD oversight; Field Data Acquisition, which defines the work associated with the RD oversight of the Supplemental Investigations; Design Support, which defines the tasks specific to reviewing the design documents; and Project Closeout, which covers closing out all files at the completion of the work assignment. The duration of RD oversight tasks in this work assignment is estimated to be 27 months based on the current schedules presented in the compliance documents.

Based upon the scope of work for the RD and RA work plan, deliverables from the RPs that will be submitted to the EPA for review are found in Table 1. CH2M HILL will review these documents for technical adequacy and conformance with the compliance documents. The Quality Assurance Project Plan (QAPP) and SSP prepared by the RPs will not be reviewed as part of the RD oversight effort but will

Table 1

**RESPONSIBLE PARTIES' EXPECTED
REMEDIAL DESIGN DELIVERABLES**

<i>DELIVERABLE TO BE REVIEWED</i>	<i>Reference/Source</i>
PREDESIGN/DESIGN PLANNING DOCUMENTS	
Draft Interim Sampling Plan & QAPP	Pg 2-1 & 2-2 of IPDWP
Method Validation Report	Pg 2-2 of IPDWP
Final Low Detection Limit SOP	Pg 2-2 of IPDWP
Final Interim Sampling Plan & QAPP	1 Revision assumed
Draft Predesign Work Plan	Figure 1-2 IPDWP
Final Predesign Work Plan	Figure 1-2 IPDWP
Draft Predesign Sampling Plan & QAPP	Assumed Necessary for
Final Predesign Sampling Plan & QAPP	Predesign Tasks 3, 4, and 5
Draft Treatability Sampling Plan	Pg7-9 IPDWP
Final Treatability Sampling Plan	1 Revision Assumed
Draft Bench Scale Testing Plan	Pg 7-10 IPDWP
Final Bench Scale Testing Plan	1 Revision Assumed
Draft RD Work Plan	SOW Pg 45
Final RD Work Plan	SOW Pg 45
INTERIM PREDESIGN TMS/REPORTS	
Groundwater/Surface Water RelationsTM	Pg 5-10 of IPDWP
Groundwater Use TM	Pg 5-8 of IPDWP
Topographic /Property Plans TM	Pg 3-5 of IPDWP
River/Floodplain Hydraulics TM	Pg6-5 of IPDWP
Background Data Report	Pg 5-6 of IPDWP
Sediment Treatability Results TM	Pg 7-10 of IPDWP
ARARs Plan	Pg 8-1 of IPDWP
FINAL PREDESIGN TMS/REPORTS	
Extent of Contaminated Sediment TM	Assumed:PD Task 4
Extent of Soil Contamination TM	Assumed: PD Task 5
Extent of Floodplain Contamination TM	Assumed : PD Task 7
Wetlands Delineation TM	Pg 6-17 IPDWP
Alternative River Alignments TM	Assumed: PD Task 9
Stream Diversion Alternatives TM	Assumed: PD Task 11
Visual Screening Pilot Test TM	Assumed : PD Task 12
Sediment/Soil Quantity TM	Assumed: PD Task 13
Dredging Alternatives TM	Assumed : PD Task 14
Untreated Materials Handling TM	Assumed: PD Task 17

Treated Materials Handling TM
Groundwater Collection TM
Groundwater Treatment Tech Eval TM

Assumed: PD Task 18
Assumed: PD Task 19
Pg 7-15 IPDWP/Task 20

FINAL DESIGN DELIVERABLES

Preliminary Design- Groundwater Treatment	Assumed
Intermediate Design-Groundwater Treatment	Assumed
Prefinal Design-Groundwater Treatment	Assumed
Final Design-Groundwater Treatment	Assumed
Preliminary Design- Slurry Biotreatment	Assumed
Intermediate Design-Slurry Biotreatment	Assumed
Prefinal Design-Slurry Biotreatment	Assumed
Final Design-Slurry Biotreatment	Assumed
Preliminary Design- Soil Cap	Assumed
Intermediate Design-Soil Cap	Assumed
Prefinal Design-Soil Cap	Assumed
Final Design-Soil Cap	Assumed
Preliminary Design-River Rerouting	Assumed
Intermediate Design-River Rerouting	Assumed
Prefinal Design-River Rerouting	Assumed
Final Design-River Rerouting	Assumed
Draft Construction QA Plan	SOW Pg 46
Final Construction QA Plan	SOW Pg 47

be used by CH2M HILL to plan and schedule the sampling oversight effort. They will be examined for information purposes only.

Task PP—Project Planning

Task PP includes project management and planning for this work assignment as well as quality control.

Subtask PP.PP—Project Planning

Subtask PP.PP includes review of RPs' deliverables to be received before approval of the oversight work plan (i.e., during interim authorization). At this time, the only deliverable planned for review will be the Draft Interim Sampling Plan, to be submitted in mid-November. The QAPP that accompanies this sampling plan will be reviewed for CH2M HILL information only. The budget for this subtask is estimated at 120 LOE and \$150 in expenses.

Subtask PP.PM—Project Management

Subtask PP.PM covers project management activities for the work assignment that are not task-specific. The labor requirement assumes 8 hours per month for the site manager and 2 hours per month for an Assistant Site Manager (ASM) to prepare monthly forecasts and technical status reports, forecast monthly workloads, schedule review team meetings for filing and document control, and to coordinate activities with the WAM. This subtask budget assumes that the technical status report will be the deliverable listed under Task 4b of the Work Assignments Statement of Work. Meetings with the WAM are not included under this subtask. The budget for this subtask is estimated at 270 LOE hours and about \$3,000 in associated expenses.

Subtask PP.WP—EPA Work Plan

Subtask PP.WP consists of the development of a work plan that details the budget, schedule, and scope of work for the RD oversight activities to be performed by CH2M HILL. The budget for this subtask is estimated at 110 LOE hours and \$850 in expenses to prepare the work plan and associated budgets and schedules and to incorporate agency review comments. Four copies of the work plan will be prepared for the EPA, two for the State of Wisconsin, and approximately eight more for internal distribution and files. This subtask includes establishing the basic project team (document reviewers are subject to change based on their availability) and the quality control review team.

Subtask PP.QC—Quality Control

Internal review of the work plan will be performed under Subtask PP.QC. The review team will consist of three to four senior staff from different disciplines who are experienced in oversight activities or are familiar with previous site activities. The budget for Subtask PP.QC assumes 34 LOE hours for senior review of the work plan and review of any major revisions to the work plan after agency review.

Task DS—Design Support Activities

Task DS covers activities associated with the oversight of the RPs' remedial design. The review of design documents will assist the EPA in evaluating whether the design generally conforms with the compliance documents.

Reviewers will evaluate documents for conformance of the design concept with the compliance documents and will limit comments to those addressing general conformance to existing published engineering standards and practices and the compliance documents. The review will not be a detailed engineering review but an evaluation for the conformance of the design concepts to the compliance documents. CH2M HILL's role will be to comment on the submittals, which will not constitute approval of the design. CH2M HILL will notify the EPA in writing of the observed deficiencies or nonconformance with the regulatory requirements identified in the compliance documents.

Subtask DS.PM — Project Management

The day-to-day coordination and monitoring of staff will be performed under Subtask DS.PM. The budget for this subtask assumes 12 hours per month and about \$130 per month in expenses to perform this activity, for a total estimate for 26 months of 312 LOE hours and about \$3,400 in expenses.

Subtask DS.QC—Quality Control

Subtask DS.QC includes internal quality control review by CH2M HILL senior staff of comments generated under Task DS. The Review Team Leader (RTL) or other senior staff members may be consulted by the Site Manager (SM) or the technical reviewers under this subtask. Meetings will be scheduled when appropriate between the SM, RTL, senior advisors, and lead reviewers for an overview of approach and appropriateness of the review comments. The internal review of comments on the documents listed in Table 1 is allocated 324 LOE hours. This assumes an average of 2 hours per reviewer per document.

Subtask DS.W1—Review Draft and Final Work Planning Documents

Subtask DS.W1 includes review of the work planning documents listed in Table 1, with the exception of the Draft Interim Sampling Plan, Validation Report, and Standard Operating Procedures which will be reviewed under Subtask PP.PP. Thus, a total of 11 documents are budgeted for review under this subtask. The work plans will detail the scope and schedule of the entire RD, including predesign field investigations.

This subtask includes a budget of 604 LOE hours for review of the work plans. It also includes LOE and expenses for the SM to prepare and formalize review comments for submittal to the WAM.

Subtask DS.DP—Preliminary RD Review (30 percent)

Under Subtask DS.DP, four preliminary RD reports (Groundwater Extraction and Treatment, Slurry Biotreatment, Site Cap, River Rerouting) submitted by the RPs will

be reviewed for conformance with the compliance documents and published standard engineering practices. This subtask assumes the preliminary designs will be submitted in report form and will provide a description of the proposed action, including:

- Remedial action objectives
- Physical properties of materials to be handled or treated
- Results of bench-scale tests or conclusions from predesign studies
- Permitting, approval, and access requirements
- Preliminary design/analysis calculations
- Drawing index and preliminary sketches
- Outline specifications

Reviewers will evaluate the documents for conformance with the design concept and will generally limit comments to those addressing general conformance with the environmental, technical, or regulatory requirements of the compliance documents and published standard engineering practices.

This subtask has a budget of 518 LOE hours and \$1,600 in expenses for review of four preliminary RD reports. It also includes LOE and expenses for the SM to prepare and formalize review comments for submittal to the WAM.

Subtask DS.DI—Intermediate RD Review (60 percent)

Under Subtask DS.DI, four intermediate RD reports (Groundwater Extraction and Treatment, Slurry Biotreatment, Site Cap, River Rerouting) submitted by the Responsible Parties will be reviewed for conformance with the compliance documents and published standard engineering practices. The intermediate RD reports will also be reviewed to see if concerns and comments generated during the preliminary RD review have been addressed adequately. The intermediate designs will be prepared when the RD effort is about 60 percent complete.

This subtask has a budget of 518 LOE hours and \$1,800 in expenses for review of the intermediate designs. This includes 80 LOE for review of a draft and final Construction QA Plan and LOE hours and expenses for the SM to prepare and formalize review comments for submittal to the WAM.

Subtask DS.PF—Prefinal RD Review (95 percent)

Under Subtask DS.PF, four prefinal RD reports (Groundwater Extraction and Treatment, Slurry Biotreatment, Site Cap, River Rerouting) submitted by the RPs will be reviewed for conformance with the compliance documents and published standard engineering practices. The prefinal RDs will also be reviewed to see if concerns and comments generated during the intermediate RD reviews have been addressed adequately. The prefinal RDs will be prepared when the RD efforts are about 95 percent complete.

This subtask a budget of 400 LOE hours and \$1,500 in expenses for review of the prefinal RDs. It also includes LOE hours to prepare and formalize review comments for submittal to the WAM.

Subtask DS.FD—Final Design Review

Under Subtask DS.FD, four final design reports submitted by the RPs to check that concerns and comments generated during the prefinal review have been adequately addressed in the final (100 percent) submittal. This report is scheduled to be submitted 45 days after approval of the prefinal design. This subtask has a budget of 202 LOE hours and \$1,300 in expenses for review of the final designs. It also includes LOE and expenses for the SM to prepare and formalize review comments for submittal to the WAM.

Subtask DS.TM—Technical Memorandum Review

Under Subtask DS.TM, the technical memorandums listed in Table 1 (i.e., the Interim Predesign and Final Predesign memorandums and reports) will be reviewed for conformance with the compliance documents and standard engineering practices. This subtask budgets 748 LOE hours and \$3,800 in expenses for review of the 20 deliverables and preparation of comments to the WAM.

Subtask DS.MG—Meetings

Subtask DS.MG assumes 12 meetings will be held per year with the WAM to discuss project progress and comments on deliverables. The budget assumes six trips will be made by the SM to the EPA's regional offices in Chicago each year and that the other six meetings will be held in Milwaukee. Associated travel expenses have been budgeted for this subtask. This subtask also budgets 1/2 day for the SM to prepare for each meeting and 1/2 day to compile, review, and distribute minutes from each meeting. The budget also assumes that the ASM will attend the meetings held in Milwaukee. The budget for this subtask assumes a total of 494 LOE hours and \$2,100 in expenses will be required.

Subtask DS.MS—Miscellaneous Support

Subtask DS.MS consists of review of minor RPs' documents, specifically requested by the WAM, related to the remedial design that have not been previously outlined, including memorandums and other documents. This subtask provides 150 LOE hours and \$500 in expenses for miscellaneous design-related reviews.

TASK DA—FIELD DATA ACQUISITION

Task DA involves the effort in oversight of the RPs' supplemental field investigations. These investigations are designed to provide information necessary for the RD work. No sample collection by CH2M HILL is anticipated. It is assumed that all field oversight activities will be conducted in health and safety Levels C or D. The budget assumes that all safety equipment for field work oversight, such as HNus, will be available from the ARCS equipment pool. In addition, it is assumed that suitable space will be provided by the RPs for storage of health and safety supplies and equipment.

Subtask DA.PM—Project Management

The day-to-day coordination and monitoring of staff will be performed under Subtask DA.PM. The budget for this subtask assumes 72 LOE hours will be required to perform this activity.

Subtask DA.QC—Quality Control

Internal review of CH2M HILL deliverables (review comments on the field oversight technical memorandums) generated under Task DA will be performed under Subtask DA.QC. The review team will consist of three or four senior level staff from different disciplines. The budget for Subtask DA.QC assumes 60 LOE hours for senior review of these documents.

Subtask DA.HS—Site Safety Plan

Subtask DS.QS covers the preparation of a SSP for field oversight activities. It is assumed that the SSPs prepared for the remedial investigation could be revised to meet this need. Additional time has been included to coordinate with the RPs' consultants to provide an onsite "buddy." Successful coordination on this issue would, in most cases, allow a single CH2M HILL representative to provide the required oversight of field activities if the SSPs are compatible. If the plans are not compatible, an additional CH2M HILL employee will be required onsite. The budget for Subtask DA.HS is estimated at 80 LOE and \$300 in expenses to prepare the SSP and to provide coordination with the RPs' consultants.

Subtask DA.FO—Field Work Oversight

Subtask DA.FO provides for an onsite observer of the RPs' predesign investigations. The sampling events are assumed to occur over the course of two separate 4-week periods. This subtask assumes the following activities will be observed in spring of 1992:

- Wetlands Delineation
- Background Sediment Sampling
- Shallow Groundwater/River Interaction (Water Level)
- River Hydraulics Investigations
- Bench-Scale Treatability Test Sample Collection
- Bench-Scale Treatability Testing

and that the following activities will be observed in summer of 1992:

- Soil Sampling
- Sediment Sampling
- Flood Plain Sampling
- Visual Screening

The observers will monitor the field work efforts for conformance with the RPs' preliminary and remedial design work plans. The observer will notify the WAM of any observed field activity at the site that, in his opinion, is inconsistent with the compliance documents.

The budget for this subtask assumes the RPs will agree to provide a "buddy" for the CH2M HILL observer, the RPs' site safety plan is consistent with CH2M HILL's safety program, and that a single observer may be used at the site.

In addition to field oversight, bench-scale testing oversight of the slurry biotreatment system at a testing laboratory has been included in the budget. It is assumed that oversight of the bench testing will last 4 days, and assumes 50 LOE hours for one observer for this subtask. The air fare for this task is budgeted at \$500 and meals and lodging at \$100 per day. The location of this laboratory is unknown. CH2M HILL assumes that these amounts will be sufficient to cover the costs.

The budget for this subtask assumes a total of 842 LOE hours and \$8,450 in expenses will be required to perform this work.

Subtask DA.TM—Technical Memorandum

CH2M HILL will prepare a technical memorandum describing the observations and conclusions related to the RPs' conformance with the compliance documents. The budget assumes 148 LOE hours for preparation of 14 copies (2 for the EPA, 2 for the State of Wisconsin, and 10 internal) of draft and final technical memorandums and related expenses.

TASK PC—PROJECT CLOSEOUT

Subtask PC.PC—Project Closeout Procedures

Subtask PC.PC includes both technical and financial project completion and closeout activities. At completion of the work assignment, project files will be closed out in accordance with CH2M HILL's ARCS V Management Plan, which specifically covers organizing and collecting project team files, file cleanout to remove unneeded material, and file inventory and indexing. It also includes preparing the work assignment completion notification. This subtask has a budget of 80 LOE hours plus office support and \$600 in miscellaneous expenses.

Project Management

Mr. Steve Keith is proposed as the SM for this work assignment. Mr. Keith has over 9 years' experience as a professional in the field of environmental engineering, is a licensed PE in the State of Wisconsin, and has experience as a site manager for another design oversight work assignment under ARCS V. Mr. Keith was the Task Manager for the feasibility study for the Moss-American site, and so is uniquely qualified to serve as the SM.

An ASM will be assigned to the project to distribute deliverables to reviewers and assist the WAM in the event Mr. Keith is not immediately available.

Project Staff

The project reviewers have not yet been selected. Reviewers will be chosen based on their experience and technical expertise related to the deliverable documents or the field oversight.

Design oversight review tasks require engineering judgment and specific technical expertise in elements of the RPs' proposed RD. Oversight design review also requires understanding of the EPA's responsibilities and liabilities associated with monitoring the RD/RA work. Senior level individuals with several years of specific technical and engineering experience have been selected to review the RPs' design documents. These reviews are done relative to the specific provisions of the compliance documents. Therefore, these senior level individuals must combine their respective technical reviews with the regulatory requirements of the site remedy selected by the EPA. The RTL and other senior staff and specialists will be consulted as needed by the technical reviewers.

Individuals with Superfund field experience are needed for oversight of the RPs' supplemental field activities and preparation of the technical memorandum documentation of oversight activities. In addition, a CH2M HILL health and safety coordinator trained in OSHA requirements is needed under this task to review and approve CH2M HILL's health and safety plan for field oversight activities.

QC Review Team

The senior review team for this project will consist of individuals who have substantial experience in Superfund oversight projects, as well as direct experience with this project. Phil Smith will be the RTL. Mr. Smith was the project manager for the early stages of the feasibility study, later served on the FS review team, and has more than 7 years' experience as a project manager for Superfund projects. Don Johnson was the project manager for the project and has more than 6 years' experience working with Superfund-related projects. Jeff Keiser has served as the SM on several Superfund projects and has been actively involved with the design oversight for the G&H Landfill site and the Electro-Voice site. He is also the project manager for the ROD Support for the South Macomb site.

Project Closeout

The SM, with assistance from support staff, will close out the project files and prepare the final technical and financial reports. Project files will cover several years of activity. Project closeout requires judgment of the SM and other technical team members to inventory the files, combine separate files, eliminate duplicate or unnecessary material, and check the final file package before it is microfilmed.

Schedule

Figure 2 is a timeline schedule of CH2M HILL's activities. The schedule assumes that the Consent Decree will be lodged in November 1991. It may need to be revised as the RPs develop or revise their schedule. CH2M HILL will be responsible only for scheduling those aspects of the project directly within its control. CH2M HILL is not

responsible for project delays caused by the RPs' failure to provide sufficient notice of sampling events, to complete work in a timely manner, or to submit deliverables as scheduled. It is assumed that CH2M HILL will review the design documents and return review comments to the EPA within 15 working days of receiving the documents. The RPs' RD work plan is scheduled to be submitted 90 days following the lodging of the Consent Decree. The schedule and budget assumes that the RD oversight work assignment activities are expected to take about 25 months following lodging of the Consent Decree, and will be completed in Fiscal Year 93/Q4.

Budget

The proposed project budget to complete RD oversight activities for the duration of the work assignment is presented in Table 2. The schedule of the work will be controlled largely by the RPs. Similarly, the quality of the deliverables is also controlled by the RPs. The Site Manager will monitor the budget over the course of the project and advise the WAM of changes when appropriate. The budget has been developed based on single reviews of project deliverables. If it becomes necessary to perform multiple reviews for each deliverable, significant increases in the costs will be incurred and a WPRR will be submitted.

GLT779/092.51

Client Proj No.: 44-5PM7
 Master Project: 6560800

Micro Workplan
 Project Summary (Includes Fee)
 Moss-American, WI
 KEITH S M

Report PRJ200
 Page 1
 Run Date: 10/30/91
 Run Time: 15:07:36
 As Of: 09/91

T A S K
 Code Description

Code	Description	Status	-Project To Date-		-Est To Complete-		-Est At Complete-		-----Budget-----	
			Prof. Hours	Total Cost	Prof. Hours	Total Cost	Prof. Hours	Total Cost	Prof. Hours	Total Cost
Field Data Acquisition: 65608DA										
FO	Fieldwork, Other	P	0	0	842	66878	842	66878	0	0
HS	Health and Safety	P	0	0	80	7237	80	7237	0	0
PM	Project Management	P	0	0	72	6011	72	6011	0	0
QC	Quality Control	P	0	0	60	5727	60	5727	0	0
TM	Technical Memorandum	P	0	0	148	12236	148	12236	0	0
ZZ	General	P	0	0	0	0	0	0	0	0
Total			0	0	1202	98089	1202	98089	0	0
Design Support Activities: 65608DS										
DI	Intermediate RD Review (60 percent)	P	0	0	518	42682	518	42682	0	0
DP	Preliminary RD Review (30 percent)	P	0	0	518	41697	518	41697	0	0
FD	Final Design Review	P	0	0	202	17923	202	17923	0	0
MG	Meetings (External)	P	0	0	494	39046	494	39046	0	0
MS	Miscellaneous Support	P	0	0	150	11486	150	11486	0	0
PF	Prefinal RD Review (95 percent)	P	0	0	400	33761	400	33761	0	0
PM	Project Management	P	0	0	312	27122	312	27122	0	0
QC	Quality Control	P	0	0	324	33168	324	33168	0	0
TM	Technical Memorandum Review	P	0	0	748	63471	748	63471	0	0
W1	Review RD Work Plans	P	0	0	604	47981	604	47981	0	0
ZZ	General	P	0	0	0	0	0	0	0	0
Total			0	0	4270	358337	4270	358337	0	0
Project Closeout: 65608PC										
PC	Project Closeout Procedures	P	0	0	80	6240	80	6240	0	0
ZZ	General	P	0	0	0	0	0	0	0	0
Total			0	0	80	6240	80	6240	0	0
Project Planning - RD: 65608PP										
PP	Project Planning General	A	0	0	120	9306	120	9306	60	4700
PM	Project Management	A	0	0	270	24899	270	24899	40	3100
QC	Quality Control	A	0	0	34	3124	34	3124	12	1050

Internal Projects, Tasks, Milestones Excluded.
 * With invoiced fee only (see PRJ090 for Total with estimated full fee).

Client Proj No.: 44-5PM7
 Master Project: 6560800

Micro Workplan
 Project Summary (Includes Fee)
 Moss-American, WI
 KEITH S M

Report PRJ200
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 Run Date: 10/30/91
 Run Time: 15:07:45
 As Of: 09/91

T A S K
 Code Description

Code Description	Status	-Project To Date-		-Est To Complete-		-Est At Complete-		-----Budget----	
		Prof. Hours	Total Cost	Prof. Hours	Total Cost	Prof. Hours	Total Cost	Prof. Hours	Total Cost
Project Planning - RD: 65608PP (con't)									
WP EPA Workplan	A	0	0	110	8727	110	8727	138	11150
ZZ General	A	0	0	0	0	0	0	0	0
Total		0	0	534	46056	534	46056	250	20000
Master Project Total		0	0*	6086	508722	6086	508722	250	20000

Internal Projects, Tasks, Milestones Excluded.

* With invoiced fee only (see PRJ090 for Total with estimated full fee).